

EAST Search History**EAST Search History (Prior Art)**

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|-----------------|------------------|---------|------------------|
| S4 | 4 | (transmit\$4 and receiv\$4 pulse\$1 with contrast microbubble\$1) and (suppress\$4 pulse\$1 and fundamental wave\$1 and second order harmonic\$1) and (pulse\$1 amplifier\$1 and amplitude\$1 MPa) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 13:55 |
| S5 | 7 | (transmit\$4 and receiv\$4 pulse\$1 and contrast microbubble\$1) and (suppress\$4 pulse\$1 and fundamental wave\$1 and second order harmonic\$1) and (pulse\$1 amplifier\$1 and amplitude\$1 MPa) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 15:45 |
| S6 | 169 | (waveform\$1 and contrast microbubble\$1) and (summ\$4 fundamental wave\$1 and second order harmonic\$1) and (display\$4 fundamental amplitude\$1) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 16:08 |
| S7 | 5 | (waveform\$1 and contrast microbubble\$1) and (summ\$4 fundamental wave\$1 and second order harmonic\$1) and (display\$4 fundamental amplitude\$1 \$S\$ MPa) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 16:09 |
| S8 | 0 | (pulse\$1 with contrast microbubble\$1) and (display\$4 fundamental amplitude\$1 and first cesond third order harmonic\$4) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 17:12 |

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| S9 | 123 | (pulse\$1 with contrast microbubble\$1) and (display\$4 fundamental amplitude \$1 and first second third order harmonic \$4) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 17:12 |
| S10 | 0 | display\$ amplitude\$1 and first order harmonic\$1 and second order harmonic \$1 | US-PGPUB; USPAT | ADJ | OFF | 2008/12/16 17:30 |
| S11 | 0 | display\$ amplitude\$1 and third order harmonic\$1 and second order harmonic \$1 | US-PGPUB; USPAT | ADJ | OFF | 2008/12/16 17:31 |
| S12 | 1 | display\$ amplitude\$1 and second order harmonic\$1 | US-PGPUB; USPAT | ADJ | OFF | 2008/12/16 17:31 |
| S13 | 0 | (signal amplitude and sound pressure) and (zero "0" degree pulse and "180" degre pulse \$1 and summ\$5 signal \$1) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:12 |
| S14 | 1 | (signal amplitude\$1 and zero "0" degree pulse and "180" degre pulse\$1 and summ\$5 signal\$1) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:13 |
| S15 | 0 | (signal amplitude\$1 and zero degree pulse and "180" degre pulse \$1 and summ\$5 signal \$1) and (harmonic\$1 filter\$5) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:15 |
| S16 | 0 | (amplitude\$1 and "120" degree pulse and "180" degre pulse \$1 and summ\$5 signal \$1) and (harmonic\$1 filter\$5) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:15 |
| S17 | 0 | (amplitude\$1 and "120" degree pulse and "180" degre pulse \$1) and (harmonic\$1 filter\$5) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:15 |

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| S18 | 0 | (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1) and (harmonic\$1 filter\$5) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:15 |
| S19 | 2566 | (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1) and (harmonic\$1 filter\$5) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:15 |
| S20 | 2404 | (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1 and summ\$5 signal \$1) and (harmonic\$1 filter\$5) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:16 |
| S21 | 34 | (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1 and summ\$5 signal \$1) and (harmonic\$1 filter\$5) and (contrast imag\$4 microbubble \$1) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:17 |
| S22 | 30 | (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1 and summ\$5 signal \$1) and (fundamental wave\$1 and second and first order harmonic\$1) and (contrast imag\$4 microbubble\$1) | US-PGPUB; USPAT | AND | OFF | 2008/12/16 19:19 |
| S23 | 1656 | 600/437.ccls. and (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1 and summ\$5 signal \$1) and (fundamental wave\$1 and second and first order harmonic\$1) and (contrast imag\$4 microbubble\$1) | US-PGPUB; USPAT | OR | OFF | 2008/12/17 21:59 |

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| S24 | 469 | 600/458.ccls. and (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1 and summ\$5 signal \$1) and (fundamental wave\$1 and second and first order harmonic\$1) and (contrast imag\$4 microbubble\$1) | US-PGPUB; USPAT | OR | OFF | 2008/12/17 22:00 |
| S25 | 327 | 600/454.ccls. and (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1 and summ\$5 signal \$1) and (fundamental wave\$1 and second and first order harmonic\$1) and (contrast imag\$4 microbubble\$1) | US-PGPUB; USPAT | OR | OFF | 2008/12/17 22:00 |
| S26 | 37 | 600/465.ccls. and (amplitude\$1 and "120" degree pulse and "180" degree pulse \$1 and summ\$5 signal \$1) and (fundamental wave\$1 and second and first order harmonic\$1) and (contrast imag\$4 microbubble\$1) | US-PGPUB; USPAT | OR | OFF | 2008/12/17 22:00 |
| S27 | 43 | "6095980" | US-PGPUB; USPAT | OR | OFF | 2009/08/30 16:00 |
| S28 | 1 | "20020188199" | US-PGPUB; USPAT | OR | OFF | 2009/08/30 16:03 |
| S29 | 10 | "5517996" | US-PGPUB; USPAT | OR | OFF | 2009/08/30 16:04 |
| S30 | 5877517 | transmit\$4 beamform \$4 and receiv\$4 beamform\$4 and add \$4 sum\$4 echo signal \$1 with transmit receiv \$4 control\$4 and envelop\$3 signal\$1 and var\$4 phas\$4 with "360" degre\$2 | US-PGPUB; USPAT | OR | OFF | 2009/08/30 16:08 |

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| S31 | 11 | transmit\$4 beamform \$4 and receiv\$4 beamform\$4 and add \$4 sum\$4 echo signal \$1 with transmit receiv \$4 control\$4 and envelop\$3 signal\$1 and phas\$4 with "360" degre\$2 | US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | AND | OFF | 2009/08/30 16:10 |
| S32 | 7 | transmit\$4 beamform \$4 and receiv\$4 beamform\$4 and add \$4 sum\$4 echo signal \$1 with transmit receiv \$4 control\$4 and envelop\$3 signal\$1 and phas\$4 with "360" degre\$2 and microbub \$5 | US_PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | AND | OFF | 2009/08/30 16:19 |
| S33 | 49 | ((TAKASHI) near2 (AZUMA)).INV. | US_PGPUB; USPAT; USOCR | OR | OFF | 2009/08/30 22:05 |

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